

**IN THE DRAWINGS:**

Figure 1 has been amended to correct various informalities. Reference numbers 51, 53, and 92 have been deleted. Flow direction arrows have been added on lines 90, 100, 102, 111, 118, 122, 128, start-up liquid, and start-up gas. The dots at junction 104 and at the junction of line 118 and 130 have been deleted. A non-junction indicator (a semi-circle facing down) has been added at the intersections of 106 and 118, 94 and 118, and 94 and 110. The lead line for reference number 116 has been moved closer to the junction. A lead line has been added for reference number 94 (near reference number 56). The line traversing the center of member 182 has been deleted. The line traversing the center of members 12 and 24 has been deleted. The lower line of member 50 has been trimmed where it intersects member 24. The lead line of reference number 28 has been slightly extended to intersect member 24. The lead line for reference number 26 has been deleted and replaced with an arrow like that of Figure 2.

Figure 2 has been amended to correct various informalities. Reference numbers 28, 156 (one of two), and 160 have been deleted. The arrow from member 160 has been kept and extended through a perforation in member 24 and reference number 154 and lead line have been added to that arrow. Reference number 158 has been changed to 28. The lower line of member 50 has been trimmed where it intersects member 24. The lead line for reference number 162 has been moved from passage 164 to point to the body surrounding passage 164. A back line has been added to the lower end of member 24. A line has been removed from member 184. A line between members 181 and 182 has been removed. Members 190 have been relocated to two new breakaway sections in the Figure. The lead line of reference number 186 has been extended into the annulus just inside of member 24.

Two replacement sheets are included with this response.

## REMARKS

This is intended as a full and complete response to the Office Action dated March 8, 2005, having a shortened statutory period for response set to expire on June 8, 2005. Please reconsider the claims pending in the application for reasons discussed below.

In the specification, the paragraphs [0016], [0018], [0020]--[0023], [0026], [0027], [0030], [0031], and [0034] have been amended to correct various informalities. No new matter has been added by these amendments.

In the drawings, Figures 1 and 2 have been amended to correct various informalities. Two replacement sheets are included with this response. No new matter has been added by these amendments.

Claims 13-37 remain pending in the application after entry of this response. Claims 1-12 are rejected and claims 13 and 14 are indicated to be allowable if redrafted in independent form. Claims 13 and 14 have been amended and new claims 15-37 have been added. No new matter has been added by the amendments or new claims. Claims 1-12 have been canceled without prejudice. Allowance of the claims is requested for reasons presented below.

### *Specification*

The disclosure of the specification has been objected to because of various informalities. Respectfully, Applicant partially traverses the objection. The reference number "28" in paragraphs [0016] and [0026] has been changed to "32" instead of "30" as suggested by the Examiner. The reference number "150" as used in paragraph [0032] is correct. With regard to the rest of the objections, the specification has been amended to correct these informalities. Withdrawal of the objection is respectfully requested.

### *Claim Rejections - 35 USC § 102*

Claims 1-5, 7 and 9 stand rejected under 35 U.S.C. 102(b) as being anticipated by *Roeder* (U.S. Pat. No. 5,055,002). Claims 1-5, 7 and 9 have been canceled. Withdrawal of the rejection is respectfully requested.

Regarding amended claims 13 and 14, *Roeder* does not teach, suggest, or disclose “highly pressurizing and mixing the gas and the liquid to form a first mixture, wherein at least a portion of the gas is dissolved into the liquid [and] injecting the first mixture into the jet pump,” as recited in claim 13. *Roeder* discloses that the power fluid may be gas, crude oil, or water (col. 5, line 30), however, *Roeder* never mentions that the power fluid may be a solution of a gas and a liquid. Therefore, claim 13 is patentable over *Roeder*. Claims 14 is also patentable over *Roeder* since it depends from claim 13.

Regarding new claims 15-23, *Roeder* does not teach, suggest, or disclose “injecting a highly pressurized solution comprising a gas dissolved in a liquid into the wellbore” as recited in claim 15. *Roeder* discloses that the power fluid may be gas, crude oil, or water (col. 5, line 30), however, *Roeder* never mentions that the power fluid may be a solution of a gas and a liquid. Therefore, claim 15 is patentable over *Roeder*. Claims 16-23 are also patentable over *Roeder* since they depend from claim 15.

Regarding new claims 24-31, *Roeder* does not teach, suggest, or disclose “injecting a compressed gas into an outlet of the jet pump” as recited in claim 24. *Roeder* only discloses using one power fluid injected through an inlet of his jet pump. Therefore, claim 24 is patentable over *Roeder*. Claims 25-31 are also patentable over *Roeder* since they depend from claim 24.,

Regarding new claims 32-37, *Roeder* does not teach, suggest, or disclose “a high pressure multiphase pump coupled to an outlet line” as recited in claim 32. The Examiner recognizes that *Roeder* does not disclose a multiphase pump in paragraph 7 of the Office Action. Therefore, claim 32 is patentable over *Roeder*. Claims 33-37 are also patentable over *Roeder* since they depend from claim 32.

### ***Claim Rejections - 35 USC § 103***

Claim 8 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *Roeder* in view of *Vilagines* (U.S. Pat. No. 6,007,306). Claim 8 has been canceled. Withdrawal of the rejection is respectfully requested.

Regarding claims 13-14 and new claims 15-23 and 32-37, *Roeder* and *Vilagines*, either alone or in combination, do not teach, suggest, or disclose any of “highly pressurizing and mixing the gas and the liquid to form a first mixture, wherein at least a

portion of the gas is dissolved into the liquid [and] injecting the first mixture into the jet pump," as recited in claim 13; "injecting a highly pressurized solution comprising a gas dissolved in a liquid into the wellbore" as recited in claim 15; or "a high pressure multiphase pump coupled to an outlet line" as recited in claim 32. As discussed above, *Roeder* does not disclose either using a solution as a power fluid or a multiphase pump. The purpose of *Vilagines'* multiphase pump is simply to propel a liquid/gas (i.e. oil and natural gas) mixture down a pipeline (col. 2, lines 56-58). As such, it is a relatively low pressure pump (col. 3, lines 26-52, note 1 MPa = 145 psi) because it only has to overcome friction losses in the pipeline. Therefore, claims 13, 15 and 32 are patentable over *Roeder* in view of *Vilagines*. Claims 14, 16-23 and 33-37 are also patentable over *Roeder* in view of *Vilagines* since they depend from claims 13, 15, and 32, respectively.

Regarding new claims 24-31, *Roeder* and *Vilagines*, either alone or in combination do not teach, suggest, or disclose "injecting a compressed gas into an outlet of the jet pump" as recited in claim 24. As discussed above, *Roeder* only discloses using one power fluid injected through an inlet of his jet pump. Adding *Vilagines'* multiphase pump does nothing to bring *Roeder* any closer to claim 24. Therefore, claim 24 is patentable over *Roeder* in view of *Vilagines*. Claims 25-31 are also patentable over *Roeder* in view of *Vilagines* since they depend from claim 24.

Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *Roeder* in view of *Vilagines* and *Sanderford* (U.S. Pat. No. 4,267,885). Claim 6 has been canceled. Withdrawal of the rejection is respectfully requested.

Regarding claims 13-14 and new claims 15-37, *Roeder*, *Vilagines*, and *Sanderford*, either alone or in combination, do not teach, suggest, or disclose any of "highly pressurizing and mixing the gas and the liquid to form a first mixture, wherein at least a portion of the gas is dissolved into the liquid [and] injecting the first mixture into the jet pump," as recited in claim 13; "injecting a highly pressurized solution comprising a gas dissolved in a liquid into the wellbore" as recited in claim 15; "injecting a compressed gas into an outlet of the jet pump" as recited in claim 24; or "a high pressure multiphase pump coupled to an outlet line" as recited in claim 32. *Sanderford* does not compensate for the lack of disclosure of *Roeder* and *Vilagines*, discussed above. Therefore, claims 13, 15, 24, and 32 are patentable over *Roeder* in view of

*Vilagines* and *Sanderford*. Claims 14, 16-23, 25-31, and 33-37 are also patentable over *Roeder* in view of *Vilagines* and *Sanderford* since they depend from claims 13, 15, 24, and 32, respectively.

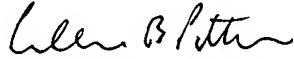
***Allowable Subject Matter***

Claims 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 13 has been amended so that it is now an independent claim (though not incorporating the base claim and any intervening claims). Withdrawal of the objection is respectfully requested.

***Conclusion***

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



---

William B. Patterson  
Registration No. 34,102  
MOSER, PATTERSON & SHERIDAN, L.L.P.  
3040 Post Oak Blvd. Suite 1500  
Houston, TX 77056  
Telephone: (713) 623-4844  
Facsimile: (713) 623-4846  
Attorney for Applicant(s)